

# **Exhibit 7**

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF OHIO  
EASTERN DIVISION

**IN RE: NATIONAL PRESCRIPTION  
OPIATE LITIGATION**

This document relates to:

*The County of Cuyahoga, Ohio, et al. v.  
Purdue Pharma L.P., et al.*  
Case No. 17-op-45004

MDL No. 2804

Hon. Dan Aaron Polster

*The County of Summit, Ohio, et al. v. Purdue  
Pharma L.P., et al.*  
Case No. 18-op-45090

**EXPERT REPORT OF JOHN J. MACDONALD III**

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May 10, 2019

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**In Re National Prescription Opiate Litigation – Track 1**  
**Expert Report of John J. MacDonald III**

**Table 4: Percentage of McCann Flagged Cardinal Dosage Units Affected by Contextual Analysis (2006-2017)**

Contextual Analysis	Description	% of McCann's Six-Month Trailing Method (Dosage Units)	% of Any Method (Dosage Units)
<b>Shipments captured by McCann “carry-forward” rule</b>	Captured because a prior shipment violated the criteria (i.e., not based on the shipment itself)	94.3%	31.8%
<b>Hydrocodone Rescheduling</b>	Captured because no adjustment for hydrocodone rescheduling	5.0%	19.2%
<b>Size of Pharmacy</b>	Captured despite less than 22% of customer's shipped volume was controlled substances	84.0%	82.3%
<b>Proximity to a Hospital</b>	Captured despite pharmacy being located in close proximity to a hospital	26.9%	28.3%
<b>Hospital Contractual Relationship</b>	Captured despite pharmacy having a 340B relationship with hospital	8.6%	8.4%
<b>Total Percentage of McCann's Analysis Affected by Contextual Analysis</b>		<b>99.6%</b>	<b>95.5%</b>

**A. Review Each Order as a Stand-Alone Shipment**

82. As described above, each of McCann's methods identifies not just shipments above his defined threshold for the month being analyzed, but also all subsequent shipments for a

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customer after a single flagged shipment.<sup>84</sup> For instance, if a shipment in January 2006 exceeded the volume threshold identified by McCann's method, all subsequent shipments of that drug to the same customer are flagged. This "carry-forward" assumption drives a majority of McCann's flagged shipments under the six-month trailing method, over 94% of which would fall below his monthly thresholds if evaluated on a monthly basis.<sup>85</sup>

83. To quantify the effect of this assumption on McCann's results, I have implemented his methods without the carry-forward assumption (i.e., only identifying the particular shipments that would be above the monthly thresholds). The results indicate that in many cases, McCann is not identifying "orders of unusual size;" rather, he is flagging customers and capturing all of their product shipments after a certain date. For example, the results of the six-month trailing method appear to identify a large number of shipments exceeding the identified threshold, however, when the carry-forward rule is eliminated, even under McCann's methodology, only about 5% of Cardinal doses shipped would be identified. Table 5 below describes the impact of removing the carry-forward rule for each of McCann's methods.

**Table 5: Comparison of Percentage of Cardinal Transactions Flagged When Removing Carry-Forward (2006-2017)<sup>86</sup>**

McCann Method	% Flagged - McCann Method	% Flagged - Remove Carry-Forward	% of McCann Flagged Dosage Units Affected
Six-Month Trailing	92.9%	5.3%	94.3%
Two Times Trailing Twelve-Month	79.6%	21.8%	72.6%
Three Times Trailing Twelve-Month	57.6%	12.5%	78.3%
8,000 Monthly Maximum	70.5%	29.8%	57.8%
Maximum Daily Dosage Units	93.6%	58.5%	37.4%
<i>Any McCann Method</i>	98.0%	66.8%	31.8%

84. An issue specific to Cardinal is that the company produced data back to 1996 whereas complete data is not consistently available for other distributors until 2006. Because

<sup>84</sup> "In this approach and the others implemented below I have been asked by Counsel to assume that the Distributor did not effectively investigate the flagged transactions and so every subsequent transaction of that drug code is also flagged." McCann Report, ¶¶ 132, 136, 140, 144, 148.

<sup>85</sup> See Table 5.

<sup>86</sup> McCann Dataset.

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Cardinal produced data for the longest time period, it is disproportionately affected by McCann's carry-forward rule. I have analyzed how many of McCann's flagged shipments were included because of the carry-forward rule being applied to flagged shipments from prior to 2006. Prior to 2006, 5.3% of dosage units flagged by McCann's six-month trailing method are because of McCann's carry-forward rule. Adjusting McCann's methods to start in 2006, and still including his carry-forward rule, results in a lower percentage of doses being identified across all five methods. For example, under the three times trailing twelve-month method, 45.7% of McCann's analyzed orders would have been flagged from 2006 forward compared to 57.6% if 1996 forward is included. Table 6 summarizes the impact of starting McCann's methods for Cardinal in 1996 versus 2006.

**Table 6: Comparison of Percentage Flagged When Applying Methods Starting in 1996 vs 2006<sup>87</sup>**

<b>McCann Method</b>	<b>% Dosage Units Flagged Based on Data Beginning in 1996</b>	<b>% Dosage Units Flagged Based on Data Beginning in 2006</b>
Six-Month Trailing	92.9%	87.6%
Two Times Trailing Twelve-Month	79.6%	68.8%
Three Times Trailing Twelve-Month	57.6%	45.7%
8,000 Monthly Maximum	70.5%	69.2%
Maximum Daily Dosage Units	93.6%	91.7%
<i>Any McCann Method</i>	98.0%	96.1%

## B. Hydrocodone Rescheduling

85. McCann's identification of shipments does not take into account the rescheduling of hydrocodone and how this event led to a change in how the product was distributed to many pharmacies. In 2014, hydrocodone was rescheduled from Schedule III to Schedule II. When hydrocodone was a Schedule III product, most large chain pharmacies (for example, Cardinal's customer CVS), used their own chain warehouses as the primary supplier of hydrocodone to their pharmacies. After the rescheduling, many chain

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<sup>87</sup> McCann Dataset numbers reported for 2006-2017 are used for both calculations, however, initial flagging and carry-forward begin in 1996 and 2006, respectively.